

## CLAIMS:

1. A voltage supply circuit, comprising:  
a first transistor (21) having a main electrode, and a control electrode that is not directly connected to ground; and  
a second transistor (22) having a first main electrode coupled to the main electrode of the first transistor (21), and a second main electrode for supplying a regulated voltage, the second main electrode being coupled to the control electrode (26) of the first transistor (21).
2. A circuit according to claim 1 wherein the first transistor (21) is a JFET.
3. A circuit according to claim 2 wherein the second transistor (22) is a JFET.
4. A circuit according to claim 1, wherein a gate (25) of the second transistor (22) is connected to ground.
5. A circuit according to claim 1, wherein the first transistor (21) is formed by a silicon-on-insulator (SOI) integration technology.
6. A circuit according to claim 1, wherein the second transistor (22) is formed by a silicon-on-insulator (SOI) integration technology.
7. A circuit according to claim 1, wherein the first transistor (21) is a high voltage JFET and the second transistor (22) is a low voltage JFET.
8. A circuit according to claim 1, further comprising a load (24, 30) coupled to the second main electrode of the second transistor (22) to receive the regulated voltage.